Telmatobius (Anura : Leptodactylidae) : the name-bearing types of five Vellard's taxa

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About 20% of the taxa of the genus Tedmatohus do not have identifiable namebaning types. Tedmatohus is a complex genus in mod of revision, but one that includers many species and subspecies described following typological concepts. It is thus necersary to have valid indements specified models and the second seco

INTRODUCTION

Of the fifty eight taxa of Telmatobius currently recognized, twenty six are due to descriptions by VELLARD in a series of seven papers published between 1946 and 1970 (see Appendix). Only for those taxa described in three papers (VELLARD, 1946, 1951, 1955) were types (holotypes or syntypes) designated. As a result eleven of VELLARD's taxa (about 20% of the genus) do not have identifiable name-bearing types: Telmatobius craufordi semipalmatus, T. craufordi microephalus, T. culsus diupar, T. culsus fluoiatilis, T. culsus lacustris, T. marmoratus riparius and T. marmoratus rugosus, described in 1955; J. albienentris globosus and T. marmoratus speadolebih, elsectibed in 1960, and T. marmoratus giag, described in 1969.

Analyzing the name-bearing types of *Telmatobius* in the Muséum national d'Histoire naturelle, Paris, I was surprised to find that seven taxa described by VELLARD were represented there by "paratypes", although the available information (Gutta, 1950; FROST, 1985) states that only the syntypes of *Telmatobius marmoratus* (Duméril & Bibron, 1841) and the holotype of *Telmatobius* second: Angel, 1923 were deposited there.

Following Art. 72b(vii) of the International Code of Zoological Nomenclature (ANONY-MOUS, 1985), the mere citation of "paratypes" in the catalogue of a museum, on specimens labels or bottles is not to be construed alone as evidence that the specimens are paratypes. Consequently, I decided to go deeper into the problem.

The need for valid reference specimens (that is, an unique name-bearer of the name) in all *Telmatobius* taxa is evident. This is a complex genus with some species and subspecies defined with a non-biological, typological concept, and with a great number of divergent populations yet undescribed or confused in other taxa.

LAVILLA

The following proposition of lectotype designations is not a choice, but a necessary action to facilitate further works on *Telmatobius* (no article of the *Code*, nor recommendation, preclude this fact before a generic revision is finished), and have in certain cases direct lustification, while in others it is necessary to use external evidence.

Acronyms mean :

- MHNIP : Museo de Historia natural Javier Prado, Lima, Perú.
- MNHN : Muséum national d'Histoire naturelle, Paris, France.

- FML : Fundación Miguel Lillo, Tucumán, Argentina (used in Appendix).

ANALYSIS OF THE AVAILABLE EVIDENCE

In pp. 24–25 of the Catalogue of MNHN, year 1957, under the title "Batraciens de la Région Andine, donnés par le Dr. J. VELLARD, Directeur Institut Etudes Andines à Lima", it is possible to find seven specimens, considered as "paratypes", and belonging to the following txaa: Tehnatobius lativostris, T. albiventris punemis, T. arequipensis arequipensis, T. jelshi bufor. T. mamoratus reagous T. mamoratus riporius and T. culeus disor.

SPECIMENS EXCLUDED FROM THE PRESENT ANALYSIS

Telmanobius lativatris. – According to the original description (VELLARD, 1951), MHNJP 325 is the type-series, 325.1 the holotype and 325.4 the allotype. The Paris specimen (MNHN 1957.862; formerly MHNJP 325) belongs to the type-series and consequently is a paratype in the sense of Art. 72 a(iii) of the International Code of Zoological Nomenclature (ANONY-MOUS, 1985).

Telmatobius albitemetris punensis. - This subspecies was described by VELLARD in 1951 based on a type-series comprising MHNJP 237 and 238. The Paris specimen (MNHN 1957.849) belongs to series MHNJP 356 collected in Chucuito on 7.XL152, one year after the original description. In spite of its designation as paratype in the catalogue and labels, this specimen is not a type.

SPECIMENS THAT CAN BE DESCRIBED AS LECTOTYPES BY DIRECT EVIDENCE

Telmatobius arequipensis arequipensis. – VELLARD (1955) dit not mention the number of specimens, but four samples (MHNJP 0063; 153; 331 and 366) were presented. The Paris specimen (MNHN 1957.861; formerly MHNJP 366) is one of an unknown number of syntypes.

Telmatobius jelskii bufo. – As in the previous case, the subspecies was described by VELLARD in 1955 based on an unknown number of specimens. Examined material were MHNJP 292; 320 and 335. The Paris specimen (MINH 1957.858 ; formerly MHNJP 335) is one of an unknown number of syntypes. Furthermore, MHNJP 335 was used in the description of a variable population of *T. jelskii* (VELLARD, 1951: 48) ; in that paper the author states that the series 335 consisted of six adults and three subadults.

SPECIMENS THAT CAN BE DESCRIBED AS LECTOTYPES BY CIRCUMSTANTIAL EVIDENCE

VELLARD's descriptions of the following three taxa share two characters :

- there is no published information about data of collecting ;

- there is no published information about collection numbers or place of deposit of the type-series.

Telmatobius mamoratus rugosus. – This subspecies was described by VELLARD in 1953, based on a type-series comprising seven specimens from Calacoto, two from Puerto Acosta, five from Moho, fifty-two from Capachica and thirty-six from Vilquechico. The Paris specimen (MNHN 1957.847; formerly MHNJP 327) is a syntype not a paratype, in the sense of Art. 72a(iii) of the Code, and belongs to a sample from Moho, collected on 17.1V.50.

Telmatobius maramoratus riparius. – This subspecies was described by VELLARD in 1953, based on a type-series comprising twelve adults and twenty-five subadults from Bahía de Juli, and one adult and three subadults from Bahía de Pomata. On p. 25 of the original description the author points out: "...Esta forma peculiar de las bahías de Juli, de donde proviene el tipo...". In spite of this quotation, there are no published data to allow the identification of the name-bearing type. The Paris specimen (MNHN 1957.848; formerly MHNJP 549) is a syntype, not a paratype, in the sense of Art. 72a(iii) of the Code, and belongs to a sample from Bahía de Juli, collected on 7.X152.

Tehnatobius culeus dispar. - This subspecies was described by VELLARD in 1953, based on thirty-two specimens from Rio Coata (= Rio Juliaca). In the original description the author says that he also found isolated specimens in Bahía de Puno. The Paris specimen (MNHN 1957.834; formerly MHNJP 617) belongs to a sample from Rio Juliaca, and was collected on 3.XI.52.

The circumstancial evidence that allows consideration of Paris specimens as lectotypes are :

- they were in MHNJP collections prior to VELLARD's descriptions;

- they belong to populations included in type-localities;

they were considered as members of the type-series by VELLARD (although erroneously named "paratypes") when he gave the specimens to MNHN.

LECTOTYPES DESCRIPTIONS

Telmatobius arequipensis arequipensis Vellard, 1955 (fig. 1)

Lectotype. - MNHN 1957.861 ; formerly MHNJP 366. Adult male.

Description. - Total length 55.3¹. Head wider (21.3) than long (18.7). Cephalic index 1.14. Head width 2.6 times in body length.

^{1.} Absolute measurements in millimeters, only as indication.



Fig. 1. - Telmatobius arequipensis arequipensis. Lectotype MNHN 1957.861. Head length : 18.7 mm. Pupil shape tentative.

Snout rounded in dorsal and lateral view, slightly overhanging the lower jaw and about 1.5 times longer than eye. Canthus rostralis straight and smooth ; loreal region concave. Nostrils rounded, flanged, not protruded, directed dorsolaterally and placed closer to eye (4.0) than to tip of snout (4.6). Internasal distance (4.3) slightly greater than naso-ocular distance (4.0) and less than the distance between the anterior corners of eves (6.6).

Vomerine teeth small and scarce: maxillary teeth present.

Eye diameter (5.6) greater than naso-ocular distance. Distance between anterior corners of eyes about 3.2 times in head width.

Tympanum indistinct. Supratympanic fold weak, short, from posterior corner of eye to a point above the insertion of forearm ; convergent with a supra-humeral and lateral fold.

Skin on back shagreened ; limbs rather smooth ; no corneal spines. Skin on belly wrinkled. Nuptial spines on chest.

Body moderately stout. Tibio-tarsal articulation reaching the eye ; heels slightly overlapping when femurs bent at right angles to body. Fold present on distal 4/5 of the inner edge of tarsus. Inner metatarsal tubercle elliptical and protruding, about 2.2 times as long as wide and about 1.8 times the size of the conical, protruding, outer metatarsal tubercle. Plantar surface smooth ; subarticular tubercles hemispherical. Toes about half webbed, with a narrow fringe to tip. Length of digits: 4>3-5>>2-1.

Forelimbs reaching the groin with the tip of the largest finger ; length of digits : 3>1>4>2. Fingers with rounded tips ; webbing absent, but a narrow, vestigial fringe pres-

ALYTES 7(1)

ent on the inner side of digits 2 and 3. Inner metacarpal tubercle oval, not protruding, about 1.5 times the size of the flat, outer metacarpal tubercle. Palmar surface rather smooth ; subarticular tubercles hemispherical. Nuptial pad with small, conical, keratnized spurs on the inner side of thumb.

Color in preservative ; irregular, dark gray spots on light gray background.

Terra typica. - Arequipa, Perú, 13.III.50, E. MALDONADO col.

Telmatobius jelskii bufo Vellard, 1955 (fig. 2)

Lectotype, - MNHN 1957.858 ; formerly MHNIP 335, Adult male,

Description. - Total length 61.4. Head wider (22.5) than long (18.6). Cephalic index 1.21. Head width about 2.7 times in body length.

Snout rounded in dorsal and lateral view, not overhanging the lower jaw and about 1.8 times longer than eye. Canthus rostralis straight and smooth ; loreal region slightly concave. Nostrils rounded, flanged, not protructing and with a tiny projection from the outer side, directed dorsolaterally and placed closer to eye (3.9) than to tip of snout (5.1). Internasal distance (4.7) greater than naso-ocular distance (3.9), and smaller than distance between anterior concers of eves (8.1).

Vomerine teeth small and scarce ; maxillary teeth present.

Eye diameter (5.3) greater than naso-ocular distance. Distance between anterior corners of eyes about 2.8 times in head width.

Tympanum indistinct. Supratympanic fold thick, curved, from posterior corner of eye to the insertion of forearm, convergent with a thick suprahumeral fold.

Skin on back and limbs distinctly warty ; each pustule with a weak, not pigmented, corneal projection. Skin on belly wrinkled ; weak warts and spines on chest.

Body moderately stout. Tibio-tarsal articulation reaching the commissure ; heels in contact when femurs bent at right angle to body. Low fold on inner edge of tarsus, reaching tibio-tarsal articulation. Inner metatarsal tubercle elliptical and protruiding, about twice as long as wide, and about 2.3 times the size of the round, flat, outer metatarsal tubercle. Plantars surface spiny ; subarticular tubercles hemispherical. Toes about half webbed with a narrow fringe to tio. All toes with rounded tips. Length of digits : 4>5 = 3>2>1.

Forelimbs reaching the groin with the tip of the second finger ; length of digits : 3>4>1>2. Fingers with rounded tips ; webbing absent, but a narrow fringe present along the inner side of digits 2 and 3. Inner metacarapal tubercle oval, not protructing, about 1.5 times the size of the subquadrangular, flat, outer metacarpal tubercle. Plantar surface granular ; subarticular tubercles hemispherical. Nuptial pad with small, conical, keratinized spurs on the inner side of thumb.

Color in preservative : uniformly dark gray.

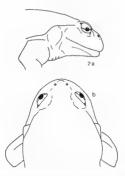


Fig. 2. - Telmatobus jelskii bufo. Lectotype MNHN 1957.858. Head length : 18,6 mm. Pupil shape tentative.

Terra typica. - Tambo, Provincia de La Mar, Ayacucho, Perú, 3100 m. Collecting date : Catalogue MNHN : 9. VIII.50 ; published (VELLARD, 1955 : 27) : IV.50. F. BLANCAS col.

Telmatobius marmoratus rugosus Vellard, 1953 (fig. 3)

Lectotype. - MNHN 1957.847 ; formerly MHNJP 327. Adulte female.

Description. - Total length 57.9. Head wider (22.1) than long (20.6). Cephalic index 1.07. Head width about 2.6 times in body length.

Snout rounded in dorsal and lateral view, barely overhanging the lower jaw and about 1.7 times longer than eye. Canthus rostralis straight and smooth ; loreal region concave. Nostrils rounded, flanged, not portvidings, without projections or inflections, directed dorsolaterally and placed closer to eye (4.1) than to tip of snout (5.6). Internasal distance (4.6) greater than naso-ocular distance and smaller than the distance between anterior corners of eyes.

Vomerine teeth small and scarce ; maxillary teeth present.

Eye diameter (5.8) larger than naso-ocular distance. Distance between anterior corners of eyes about 2.7 times in head width.

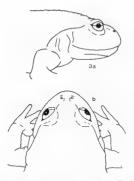


Fig. 3. – Telmatobus marmoratus rugosus. Lectotype MNHN 1957.847. Head length : 20.6 mm. Pupil shape tentative.

Tympanum indistinct. Supratympanic fold thick, curved, from posterior corner of eye to the insertion of forearm. Suprahumeral and lateral fold present.

Skin on back warty, with some corneal projections on marginal areas ; skin on limbs almost smooth ; some corneal projections on tibia. Lateral body with warts and corneal projections. Ventrally wrinkled ; warts on femur and chest.

Body moderately stout. Tibio-tarsal articulation reaching the commissure. Heels almost in contact when femurs bent at right angles to body. Low fold on distal 2/3 of inner edge of tarsus. Inner metatarsal rubercle elliptical and protruding, about 2.3 times as along as wide and about 2.5 times the size of the round, rather flat, outer metatarsal tubercle. Plantar surface rather smooth on inner side, and slightly spiny on outer one; subarticular tubercles conical. Toes about 1.3 webbed, with a narrow fringe to tip. All toes with rounded tips. Length of digits: <43>5>1<.

Forelimbs reaching groin with the tip of longest finger ; length of digits : 3>1>4>2. Fingers with rounded tips ; webbing absent, but a narrow fringe present along the inner side of digits 2 and 3. Inner metacarpal tubercle elliptical, slightly protruding, about 1.4 times the size of the subquadrangular, flat outer metacarpal tubercle. Plantar surface granular ; subarticular tubercles conical.

Color in preservative : rounded, dark brown spots on lighter brown background.

Terra typica. - Moho, Perú. 17.IV.50. Collector unknown.





Fig. 4. - Telmatobus marmoratus reparus. Lectotype MNHN 1957.848. Head length : 18.3 mm. Pupil shape tentative.

> Telmatobius marmoratus riparius Vellard, 1953 (fig. 4)

Lectotype. - MNHN 1957.848 ; formerly MHNJP 549. Adult female.

Description. - Total length 53.6. Head wider (22.3) than long (18.3). Cephalic index 1.22 ; head width about 2.4 times in body length.

Snout rounded in dorsal and lateral view, barely overhanging the lower jaw and about 1.8 times longer than eye. Canthus rostralis straight and smooth ; loreal region slanting. Nostrils rounded, flanged, not protructings, without projections or inflections, directed dorsolaterally and placed closer to eye (3.9) than to tip of snout (4.3). Internasal distance about the same as naso-ocular distance and smaller than the distance between anterior corners of eyes.

Vomerine teeth small and scarce ; maxillary teeth present.

Eye diameter (4.6) larger than the naso-ocular distance ; distance between anterior corners of eyes about 2.8 times in head width.

Tympanum indistinct ; supratympanic fold thick, from posterior corner of eye to the anterior margan of forearm insertion, continued posteriorly by a thick suprahumeral and lateral fold.

Skin on back and limbs shagreened, with some low, rounded and scattered warts ; no keratinizations present. Skin on belly wrinkled.

ALYTES 7 (1)

Body stout. Tibio-tarsal articulation reaching the forearm. Heels overlapping when femurs bent at right angles to body. Low fold on distal 2/3 of inner edge of tarsus. Inner metatarsal twherel elliptical, about 2.3 times as long as wide and about 2.5 times the size of the subquadrangular, rather flat, outer metatarsal tubercle. Plantar surface smooth ; subarticular tubercles conacal, protruding. Toes about half webbed, with a fringe to tip. All toes with rounded tips. Lengt ho (dists $1 \le 43 \le 5 \le 2$).

Forclimbs reaching the groin with the tip of the largest finger; length of digits : 3>1 = 2=4. Fingers with rounded tips. Webbing absent, but a narrow fringe present on the inner side of digits 2 and 3. Inner metacarpal tubercle oval, about 1.5 times the size of the round, flat, outer metacarpal tubercle. Palmar surface slightly granular. Subarticular tubercles conical.

Color in preservative : small, cream, round spots on a brown background.

Terra typica. - Bahía de Juli, Lago Titicaca, Puno, Perú. 7.XI.52. Collector unknown.

Telmatobius culeus dispar Vellard, 1953 (fig. 5)

Lectotype. - MNHN 1957.854 ; formerly MHNJP 617. Adult male.

Description. - Total length 119.9. Head wider (46.1) than long (34.2). Cephalic index 1.35. Head width about 2.6 times in body length.

Snout rounded in dorsal view and truncate laterally, not overhanging the lower jaw and about 1.8 times longer than eye. Canthus rostralis straight and smooth ; loreal region concave. Nostrilis rounded, flanged, not protruding ; without inflections but with a projection from the outer margin ; directed dorsolaterally and placed slightly closer to eye (7.1) than to tip of snout (7.8). Internasal distance (7.3) greater than naso-ocular distance and smaller than the distance between anterior concers of eyes (14.2).

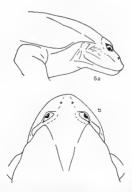
Vomerine teeth small and scarce; maxillary teeth present.

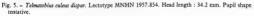
Eye diameter (8.4) larger than naso-ocular distance ; distance between anterior corners of eyes about 3.2 times in head width.

Tympanum indistinct. Supratympanic fold curved, from the posterior corner of eye to the anterior margin of humerus. Suprahumeral and lateral fold thick, forming a lateral flap of skin.

Skin on dorsum smooth, with warty areas on postocular and vertebral regions and on posterior half. Skin on limbs smooth. Ventrally : anterior half smooth ; posterior half wrinkled and pustulated.

Body stout. Tibio-tarsal articulation reaching the commissure. Heels overlapping when femurs bent at right angles to body. Low fold on distal 2/3 of inner edge of tarsus. Inner metatarsal tubercle elliptical and portunding, about 2.2 times as long as wide, and about 2.75 times the size of the round, flat outer metatarsal tubercle. Plantar surface smooth ; subarticular tubercles hemispherical. Toes about half webbed, with a narrow fringe to tip. All toes with rounded tips. Length of digits 1 <4 3-5 >>> >> >1.





Forelimbs not reaching the groin. Length of digits : 3>1>4>2. Finger with rounded tips ; webbing absent, but a narrow fringe present on the inner side of digits 2 and 3. Inner metacarpal tubercle slightly portuding, about the same size as the subtraingular, flat outer metacarpal tubercle. Pailmar surface almost smooth. Subarticular tubercles conical. Nuptial pad with a very small, dense corneal projection on the inner side of thumb.

Color in preservative : uniformly dark gray.

Terra typica, - Rio Juliaca, Puno, Perú. 3.XI.52. Collector unknown.

In the original description of this subspecies, VELLARD (1953) pointed out the presence of two phenotypes within the taxon, one with a thick "dorsal disc" and the other without. The Paris specimen belongs to the first form.

FINAL COMMENTS

Three recommendations of the Code concerning lectotype designation were not followed here (recommendation compliance is not mandatory). They are :

- Rec. 74 B points out that when possible, it is preferable to designate as lectorype a syntype of which an illustration has been published. The only specimen previously illustrated of those taxa was a female of *Telmatobius culeus dispat* from Rio Ilave, while the typeseries for this taxon came from Rio Casta or Juliaca (VELLARD, 1953).

ALYTES 7 (1)

- Rec. 74 D points out that when possible, lectotypes should be designated in the institution containing the largest number of syntypes of the nominal taxon. The Muséum national d'Histoire naturelle, Paris, has only one specimen of each examined taxon, but at the same time this museum has a history of maintaining well preserved specimens and making them available for study.

 Rec. 74 F points out that when possible, each former syntype should be clearly labeled with the designation of "pratectotype". In certain cases it was (is) almost impossible to identify the whole type-series.

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Résumé

A peu près 20% des taxons du genre Telmatolius ne possèdent pas de types porte-noms identifiables. Etant donné qu'il s'agit d'un genre complexe qui comprend beaucoup d'espèces et sous-espèces décrites selon des concepts typologiques sans tenir compte des variations au sein des populations, il est nécessaire d'avoir des exemplaires de référence valides pour chacun des taxons connus avant d'entreprendre la révision du groupe. Pour cette raison on désigne ici des lectotypes pour cinq taxons décrits par VELLARD (*Telmatobius arequipensis arequipensis, T. Jelskii bufo, T. marmoratus rugosus, T. marmoratus ruparius* et *T. culeus dispar*) basés sur des exemplaires de la collection du Muséum national d'Histoire naturelle de Paris.

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APPENDIX

LIST OF *TELMATOBIUS* SPECIES AND SUBSPECIES DESCRIBED BY VELLARD, AND THE SITUATION OF THEIR NAME-BEARING TYPES

As mentioned in the introduction, 26 taxa of *Telmatobus* are due to VELLARD's descriptions. From the following list, five situations arise in relation to their name-bearing types :

(a) An identifiable holotype exists.

(b) An identifiable type-series (syntypes) exists.

(c) A collection number exists, but information on the number of specimens is not included.

(d) A group of specimens (type-series?) exists, but there is no mention about depository of the collection.

(e) There are no traceable name-bearing types.

VELLARD worked for a long time at Museo de Historia natural Javier Prado in Lima, Perú. It is possible that some of those not formally designated or not traceable name-bearing types still exist there, but extensive detective work would be needed to identify them accurately.

- (1) Telmatobius albiventris globulosus Vellard, 1960 : 14.
- Name-bearing type (NBT) : MHNJP 330, 1 female.
- (2) Telmatobius albiventris parkeri Vellard, 1951 : 58.
 - NBT : MHNJP 157, 2 males, 5 females.
- (3) Telmatobius albiventris punensis Vellard, 1951: 57. NBT: MHNJP 237, 2 males, 3 females; MHNJP 238, 8 specimens (not sexed).
- (4) Telmatobus arequipensis arequipensis Vellard, 1955 : 19-20.
- NBT : see previous discussion.
- (5) Telmatobius arequipensis natator Vellard, 1955 : 20.

NBT : MHNJP 556, without determination of number of individuals.

(6) Telmatobus brevipes Vellard, 1951 : 71.

NBT : type MHNJP 246.3, male ; allotype : MHNJP 246.1, female ; paratypes : MHNJP 246.2 ; 4 - 12. 3 males and 7 females.

- (7) Telmatobus brevirostris brevirostris Vellard. 1955 : 21-22.
- NBT : MHNIP 424, without determination of number of individuals.
- (8) Telmatobius brevnostris parvulus Vellard, 1955 : 22-23. NBT : MHNIP 493, without determination of number of individuals.
- (9) Telmatobus brevnostris punctatus Vellard, 1955 : 22. NBT : MHNIP 240, without determination of number of individuals.

(10) Telmatobius crawfordi semipalmatus Vellard, 1953 : 47.

NBT : 2 males, 6 females and 4 young, without indication about depository collection or collection numbers.

- (11) Telmatobius culeus dispar Vellard, 1953 : 40. NBT : see previous discussion.
- (12) Telmatobius culeus exsul Vellard, 1951: 66.
 - NBT : MHNIP 326, 1 male.
- (13) Telmatobius culeus fluviatilis Vellard, 1953 : 40.

NBT : 12 adults (not sexed) and 6 young, without indication about depository collection or collection numbers.

(14) Telmatobus culeus lacustris Vellard, 1953 ; 41.

NBT : not defined in the original description ; apparently 3 individuals (see table in p. 52) were used for descriptions.

(15) Telmatobius intermedius Vellard, 1951: 29.

NBT : MHNJP 238.1, male ; 238.3, female ; the original series includes two mere individuals : 238.2, male and 238.4, juvenile.

- (16) Telmatobius jelsku bufo Vellard, 1955 : 16.
- NBT : see previous discussion.
- (17) Telmatobus jelsku longitarsis Vellard, 1955 : 15.

NBT : MHNJP 336 ; 339 ; 601 (not sexed) ; without determination of number of individuals.

(18) Telmatobus laturostris Vellard, 1951: 68.

NBT : type MHNJP 325.1, male ; allotype MHNJP 325.4, female ; paratypes : 2 males, 6 females and 3 young, without identification.

(19) Telmatobius marmoratus gugas Vellard, 1969 : 1112.

NBT : one female ; without indications about depository collection or collection number. (20) Telmatobius marmoratus microcephalus Vellard, 1953 ; 49.

NBT : 7 males, 8 females and 5 young, without indication about depository collection or collection number.

(21) Telmatobius marmoratus pseudoielskii Vellard, 1960 ; 8,

NBT : series number 363 ; 657 ; 368 and 344 (not sexed) ; without indication about number of individuals or depository collection (presumably MHNIP).

- (22) Telmatobius marmoratus riparius Vellard, 1953 : 25. NBT : see previous discussion.
- (23) Telmatobius marmoratus rugosus Vellard, 1953 : 17. NBT : see previous discussion.
- (24) Telmatobius oxycephalus Vellard, 1946 : 320. NBT : type FML 00225, 1 male.
- (25) Telmatobius rimac meridionalis Vellard, 1955; 18. NBT : MHNJP 485 (not sexed), without determination of number of individuals.
- (26) Telmatobus schreuteri Vellard, 1946 : 321. NBT : type FML 00216, 1 male.

Note. — Determinations of type, holotype, allotype and paratypes were used following VEL-LARD's designations.